

**REMARKS**

This Amendment and Response to Non-Final Office Action is being submitted in response to the non-final Office Action mailed September 20, 2004. Claims 1-26 were pending in the Application. Claims 1, 2, 4-15, and 17-26 stand rejected under 35 U.S.C. 102(b) as being anticipated by Fazzio (U.S. Patent No. 6,324,249). Claims 6 and 19 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claims 6 and 19 also stand objected to under 37 CFR 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. Finally, Claims 3 and 16 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the elements and limitations of the base claim and any intervening claims.

In response to these rejections and objections, Claims 1 and 14 have been amended to further clarify the subject matter which Applicants regard as the invention and Claims 2, 3, 6, 15, 16, and 19 have been canceled. The amendments are fully supported in the Specification, Drawings, and Claims of the Application and no new matter has been added. Based upon the amendments, reconsideration of the Application is respectfully requested in view of the following remarks.

**Rejection of Claims 6 and 19 Under 35 U.S.C. 112, second paragraph, and  
Objection to Claims 6 and 19 Under 37 CFR 1.75(c):**

Claims 6 and 19 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claims 6 and 19 also stand objected to under 37 CFR 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim.

In response to this rejection and objection, Claims 6 and 19 have been canceled. Therefore, Applicants respectfully request that Examiner withdraw the rejection of Claims 6 and 19 under 35 U.S.C. 112, second paragraph, and objection to Claims 6 and 19 under 37 CFR 1.75(c).

**Rejection of Claims 1, 2, 4-15, and 17-26 Under 35 U.S.C. 102(b):**

Claims 1, 2, 4-15, and 17-26 stand rejected under 35 U.S.C. 102(b) as being anticipated by Fazzio (U.S. Patent No. 6,324,249).

In response to this rejection, independent Claims 1 and 14 have been amended to include the elements/limitations of objected to, but allowable dependent Claims 3 and 16. Specifically, Claim 1 has been amended to recite:

1. A tomosynthesis system for creating a reconstructed image of an object from a plurality of two-dimensional x-ray projection images, the system comprising:  
an x-ray detector;  
an x-ray source capable of emitting x-rays directed at the x-ray detector,  
wherein the tomosynthesis system utilizes asymmetric image acquisition geometry, where  $\theta_1 \neq \theta_0$ , during image acquisition, wherein  $\theta_1$  is a sweep angle on one side of a center line of the x-ray detector, and  $\theta_0$  is a sweep angle on an opposite side of the center line of the x-ray detector;  
*wherein the total sweep angle ( $\varphi_{asym}$ ) is:  $\varphi_{asym} = \theta_1 + \theta_0$ ; and*  
*wherein  $\varphi_{asym}$  is about 40° to about 60°.*

Likewise, Claim 14 has been amended to recite:

14. A tomosynthesis method for creating a reconstructed image of an object from a plurality of two-dimensional x-ray projection images, the method comprising:  
providing an x-ray detector;  
providing an x-ray source capable of emitting x-rays directed at the x-ray detector;  
utilizing asymmetric image acquisition geometry, where  $\theta_1 \neq \theta_0$ , during image acquisition, wherein  $\theta_1$  is a sweep angle on one side of a

center line of the x-ray detector, and  $\theta_0$  is a sweep angle on an opposite side of the center line of the x-ray detector;

*wherein the total sweep angle ( $\varphi_{asym}$ ) is:  $\varphi_{asym} = \theta_1 + \theta_0$ ; and  
wherein  $\varphi_{asym}$  is about  $40^\circ$  to about  $60^\circ$ .*

With regard to the elements/limitations of Claims 3 and 16, Examiner has indicated that Claims 3 and 16 would be allowable if rewritten in independent form including all of the elements and limitations of the base claim and any intervening claims.

Therefore, Applicants submit that Claims 1 and 14 are now in condition for allowance and respectfully request that Examiner withdraw the rejection of Claims 1 and 14 under 35 U.S.C. 102(b). Because Claims 2, 4-13, 15, and 17-26 are dependent from Claims 1 and 14, Applicants submit that Claims 2, 4-13, 15, and 17-26 are also now in condition for allowance and respectfully request that Examiner withdraw the rejection of Claims 2, 4-13, 15, and 17-26 under 35 U.S.C. 102(b).

**Objection to Claims 3 and 16:**

Claims 3 and 16 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the elements and limitations of the base claim and any intervening claims.

As discussed above, Claims 1 and 14 have been amended to include the elements/limitations of objected to, but allowable dependent Claims 3 and 16. Claims 3 and 16 have been canceled. Therefore, Applicants respectfully request that Examiner withdraw the objection to Claims 3 and 16.

CONCLUSION

Applicants would like to thank Examiner for the attention and consideration accorded the Application. Should Examiner determine that any further action is necessary to place the Application in condition for allowance, Examiner is encouraged to contact undersigned Counsel at the telephone number, facsimile number, address, or email address provided below. It is not believed that any fees for additional claims, extensions of time, or the like are required beyond those that may otherwise be indicated in the documents accompanying this paper. However, if such additional fees are required, Examiner is encouraged to notify undersigned Counsel at Examiner's earliest convenience.

Respectfully submitted,

Date: November 19, 2004

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Applicant(s): - Baojun LI et al.


Title: - *Radiographic Tomosynthesis Image Acquisition  
Utilizing Asymmetric Geometry*

Examiner: - Thomas R. Artman

Art Unit: - 2882

Attorney Docket No.: - 135841 (3786)

I hereby certify that the above-referenced documents are being/have been deposited with the United States Postal Service "Express Mail Post Office to Addressee" in accordance with 37 CFR 1.10 on the above-referenced date and are being/have been addressed to: **Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 USA.**

  
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